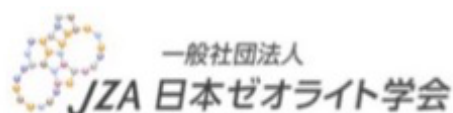
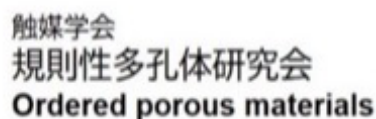


International Symposium on Porous Materials 2021

Nov. 4 - 5, 2021

Online / Akiba Plaza, Chiyoda-ku, Tokyo, Japan

Sponsors and Exhibitors



International Symposium on Porous Materials 2021

【主催】 International Symposium on Porous Materials 2021 実行委員会
東京工業大学ナノ空間触媒研究ユニット

東京大学大久保-脇原-伊與木研究室

【協賛】 一般社団法人 日本ゼオライト学会

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触媒学会 規則性多孔体研究会

触媒学会 固体酸塩基点の作用と設計研究会

【Special thanks】

Zhejiang University

Korea Advanced Institute of Science and Technology

National Taiwan University

Taiwan Catalysis Society

Organizing Committee

Toshiyuki Yokoi (Tokyo Institute of Technology)

Toru Wakihara (The University of Tokyo)

Xiangju Meng (Zhejiang University)

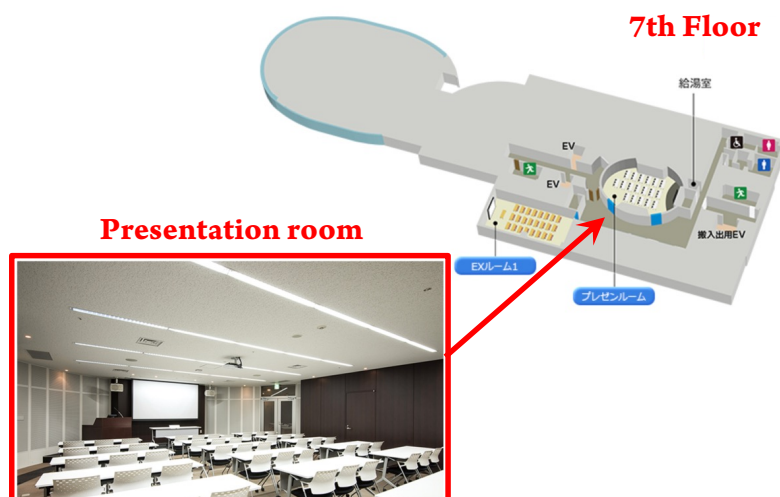
Minkee Choi (Korea Advanced Institute of Science and Technology)

Kevin C.-W. Wu (National Taiwan University)

Dun-Yen Kang (National Taiwan University)

Venue

Tokyo site: AKIBA PLAZA
2F, 5F, 6F, 7F of FUJISOFT Bldg.
3 Kandane-ribe-cho, Chiyoda-ku, Tokyo, 101-0022



Program

Nov. 4 (Thu.)

8:30 Connection test / Rehearsal

8:50 Opening remarks

Session 1, Chair: Dun-Yen Kang, National Taiwan University

9:00 **Invited lecture 1** by **Prof. Chechia Hu** (Taiwan University of Science and Technology)

“MIL-88B-Fe-based photocatalytic membrane reactor for improving permeance flux and phenol removal efficiency”

9:20 **Invited lecture 2** by **Prof. Yi-Pei Li** (National Taiwan University)

“Development of Theoretical Methods for Efficient Modeling of Reactions in Porous Catalysts”

9:40 **Invited lecture 3** by **Prof. Jiho Shin** (Korea Research Institute of Chemical Technology)

“Multiple Inorganic Cation Approach for the Synthesis of New Zeolites”

10:00 **Invited lecture 4** by **Prof. Jong Hun Kang** (Seoul National University)

“Germanium Siting in Double-4-Ring of CIT-13 Zeotype and Its Post-synthetic Transformations”

10:20 Break

Session 2, Chair: Toshiyui Yokoi, Tokyo Institute of Technology

10:30 **Oral presentation 1** by **Dr. Takamichi Matsuno** (Waseda University)

“Preparation of Ordered Nanoporous Indium Tin Oxides with Large Crystallites and Their Thermal and Electrical Conductivities”

10:45 **Oral presentation 2** by **Prof. Takahiko Moteki** (The University of Tokyo)

“Effect of zeolite framework structure on CO-assisted methane conversion to C1/C2 oxygenates over zeolite supported metal catalysts”

11:00 **Oral presentation 3** by **Takuhi Hara** (Tokyo Institute of Technology)

“Cesium adsorption behaviors and thermal study using functional porous glass”

11:15 **Oral presentation 4** by **Dr. Enrique Ezra. Zuñiga-Heredia** (Health Sciences University of Hokkaido)

“Bioactive glass surface functionalization for Ca²⁺ control”

11:30 Break

Session 3, Chair: Xiangju Meng, Zhejiang University

- 10:40 **Invited lecture 5** by **Prof. Jun Xu** (Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences)
“Mechanistic insight into the conversion of light alkanes over metal modified zeolites from solid-state NMR spectroscopy”
- 12:00 **Invited lecture 6** by **Prof. Yanhang Ma** (Shanghai Tech University)
“Electron Crystallographic Approaches for Structural Analysis of Nanoporous Materials”
- 12:20 **Invited lecture 7** by **Prof. Lihua Chen** (Wuhan University of Technology)
“Hierarchically porous zeolite single crystals for high catalytic efficiency”
- 12:40 Break

Session 4, Chair: Toshiyui Yokoi, Tokyo Institute of Technology

- 13:30 **Plenary lecture 1** by **Prof. Wataru Ueda** (Kanagawa University)
“Zeolitic Octahedral Metal Oxides as New All-Inorganic Solid Crystalline Catalysts”
- 14:10 **Invited lecture 8** by **Prof. Chia-Her Lin** (National Taiwan Normal University)
“The shell modification of nanoporous metal-organic frameworks and applications”
- 14:30 **Invited lecture 9** by **Prof. Cheng-Yu Wang** (National Yang Ming Chiao Tung University)
“Porous Materials for Chemical Hydride Nanoconfinement and Dehydrogenation”
- 14:50 Break

Session 5, Chair: Xiangju Meng, Zhejiang University

- 15:00 **Oral presentation 5** by **Dr. Feng Jiao** (Dalian Institute of Chemical and Physics, Chinese Academy of Sciences)
“Role of Zeolites in Selective Syngas Conversion Via OXZEO Process”
- 15:15 **Oral presentation 6** by **Dr. Li Tan** (Fuzhou University)
“Stabilizing single-site PtZn nanoalloy catalyst *via* in situ formation of overcoating for propane non-oxidative dehydrogenation”
- 15:30 **Oral presentation 7** by **Yoshifumi Kondo** (Osaka University)
“Effect of missing-linker sites in Zr-MOF for photocatalytic hydrogen peroxide production”
- 15:45 **Oral presentation 8** by **Dr. Priyanka Verma** (Osaka University)
“Mesoporous silica supported Ag/Ti-based plasmonic catalyst for the efficient hydrogen production under solar light irradiation”
- 16:00 **Invited lecture 10** by **Prof. Li-Chiang Lin** (National Taiwan University)
“Computational Study of Porous Materials for Water Adsorption Applications”
- 16:20 Break

Session 6, Chair: Minkee Choi, Korea Advanced Institute of Science and Technology

- 16:30 **Oral presentation 9** by **Dr. Han Chang Kwon** (Korea Advanced Institute of Science and Technology)
“Catalytic Interplay of Ga, Pt, and Ce on the γ -Alumina Enabling High Activity, Selectivity, and Stability in Propane Dehydrogenation”
- 16:45 **Oral presentation 10** by **Kyunglim Hyun** (Korea Advanced Institute of Science and Technology)
“Tuning Dynamic Metal-Polymer Interaction via Polymer Functionality for Selective and Stable Partial Hydrogenation Catalysts”
- 17:00 **Oral presentation 11** by **Dr. Yuchao Chai** (Nankai University)
“Alkyne Selective Hydrogenation Catalyzed by Cationic Nickel Confined in Zeolite”
- 17:15 **Oral presentation 12** by **Dr. Sen Wang** (Institute of Coal Chemistry)
“Tuning the location of acid sites in zeolite and regulating its catalytic performance”
- 17:30 **Invited lecture 11** by **Prof. I-Chung Cheng** (National Taiwan University)
“Synthesis and characterization of nanoporous Cu thin films by dealloying”
- 17:50 Break

Session 7, Chair: Toshiyuki Yokoi, Tokyo Institute of Technology

- 18:00 **Invited lecture 12** by **Prof. Rino Mukti** (Institut Teknologi Bandung)
“Transformation of Indonesian Natural Crystalline Aluminosilicate Material to Several Types of Zeolite”
- 18:20 **Plenary lecture 2** by **Prof. Fernando Rey** (Instituto de Tecnologia Quimica (ITQ))
“Charge Matching of occluded Organic Structure Directing Cations in Zeolites”
- 19:00 End

Nov. 5 (Fri.)

8:30 Connection test / Rehearsal

Session 8, Chair: Toru Wakihara, The University of Tokyo

- 9:00 **Plenary lecture 3** by **Prof. Jeffrey D. Rimer** (University of Houston)
"Recent Advancements in the Design of Zeolites with Reduced Diffusion Limitations"
- 9:40 **Invited lecture 13** by **Prof. Wei Fan** (University of Massachusetts, Amherst)
"Investigation of Crystallization Process of Siliceous Zeolites *via* Raman Spectroscopy"
- 10:00 Break

Session 9, Chair: Chung-Wei Kung, National Cheng Kung University

- 10:10 **Invited lecture 14** by **Prof. Changbum Jo** (Inha University)
"Oxidative ethane dehydrogenation with CO₂ as a soft oxidant over supported single atomic CeOx/Pt5Ce intermetallic nanoparticle catalyst"
- 10:30 **Invited lecture 15** by **Prof. Kyoungsoo Kim** (Jeonbuk National University)
"Enhanced eletrocatalytic performance of Pt nanoclusters supported on zeolite-templated carbons for glycerol oxidation"
- 10:50 **Invited lecture 16** by **Prof. Zhengqing Qin** (China University of Petroleum)
"Fluoride etching in zeolite research: demetallization and beyond"
- 11:10 **Invited lecture 17** by **Prof. Qinming Wu** (Zhejiang University)
"Rational synthesis of zeolites for industrial application"
- 11:30 Break

Session 10, Chair: Fa-Kuen Shieh, National Central University

- 11:40 **Invited lecture 18** by **Prof. Chawalit Ngamcharussrivichai** (Chulalongkorn University)
"Catalytic Conversion of Glucose into 5-Hydroxymethylfurfural over HUSY Zeolites"
- 12:00 **Invited lecture 19** by **Prof. Shiao Wei Kuo** (National Sun Yat-sen University)
"From Self-Assembly Structure to Mesoporous and Microporous Materials"
- 12:20 **Invited lecture 20** by **Prof. Teng-Hao Chen** (National Cheng Kung University)
"CO₂ Capture by Pressure Swing Adsorption Using a Macrocyclic Porous Molecular Crystal"
- 12:40 Break

Session 11, Chair: Toshiyuki Yokoi, Tokyo Institute of Technology

- 13:30 **Oral presentation 13** by **Ginpei Tanaka** (Tohoku University)
 “Synthesis of Fe-substituted MWW-type zeolites via a mechanochemical method”
- 13:45 **Oral presentation 14** by **Yuki Sada** (The University of Tokyo)
 “Tracking the Crystallization Behavior of High-Silica FAU During FAU-to-AEI Interzeolite Conversion Using Acid Treated FAU-type Zeolite”
- 14:00 **Oral presentation 15** by **Dr. Motomu Sakai** (Waseda University)
 “Rapid defect healing for silicalite-1 membrane by alkaline-treatment in the presence of pore-filling agent”
- 14:15 **Oral presentation 16** by **Dr. Chengtao Wang** (Zhejiang University)
 “RhMn@zeolite catalyst for syngas conversion”
- 14:30 Break

Session 12, Chair: Li-Hsien Yeh, National Taiwan University of Science and Technology

- 14:40 **Invited lecture 21** by **Prof. Dong-Yeun Koh** (Korea Advanced Institute of Science and Technology)
 “Microporous Materials in Scalable Shapes: Fiber Sorbents”
- 15:00 **Invited lecture 22** by **Prof. Myungeun Seo** (Korea Advanced Institute of Science and Technology)
 “Nanoporous Polymers from Block Polymer Precursors: How to Make Pores Smaller Yet Robust”
- 15:20 **Invited lecture 23** by **Prof. Min Kim** (Chungbuk National University)
 “Selective Oxidations of Primary Alcohols with Radical-Functionalized Metal-Organic Frameworks”
- 15:40 Break

Session 13, Chair: Toshiyuki Yokoi, Tokyo Institute of Technology

- 15:50 **Invited lecture 24** by **Prof. Heng-Liang Wu** (National Taiwan University)
 “Regulated Li Electrodeposition Behavior through Mesoporous Silica Thin Film in Lithium Metal Batteries”
- 16:10 **Plenary lecture 4** by **Prof. Peng Wu** (East China Normal University)
 “Developing Zeolitic Catalysts from Layered Precursors”
- 16:50 Closing remarks
- 17:00 End